UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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December 6, 2011

Superintendent Philip A. Francis, Jr.
Blue Ridge Parkway
199 Hemphill Knob Road
Asheville, NC 28803

RE: Draft General Management Plan /Environmental Impact Statement Blue Ridge Parkway Virginia and North Carolina
CEQ Number: 20110334

Dear Mr. Francis:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject Draft General Management Plan /Environmental Impact Statement Blue Ridge Parkway Virginia and North Carolina. This Draft Environmental Impact Statement (DEIS) was reviewed by EPA Region 3 (Virginia) and EPA Region 4 (North Carolina).

General management plans are intended to be long-term documents that establish and articulate a management philosophy and framework for decision making and problem solving in units of the national park system. General management plans usually provide guidance during a 15- to 20-year period.

This Draft General Management Plan /Environmental Impact Statement presents three alternatives for the future management of the Blue Ridge Parkway. The alternatives, which are based on the parkway's purpose, significance, and special mandates, present different ways to manage resources and visitor use and improve facilities and infrastructure. The three alternatives are the no-action alternative (continue current management), alternative B, and alternative C. Alternative B has been identified as the National Park Service's preferred alternative.

ALTERNATIVE A: THE NO-ACTION ALTERNATIVE (CONTINUE CURRENT MANAGEMENT)

The no-action alternative consists of a continuation of existing management and trends at the parkway and provides a baseline for comparison in evaluating the changes and impacts of the other alternatives. The National Park Service would continue to manage the parkway as it is currently being managed, but there is not a comprehensive parkway-wide resource and visitor

use management direction for setting priorities. Resource and visitor use issues and conflicts would continue to be resolved on a case-by-case basis without the guidance of an agreed upon parkway-wide management strategy.

ALTERNATIVE B (NATIONAL PARK SERVICE PREFERRED)

Under alternative B, the parkway would be actively managed as a traditional, self contained, scenic recreational driving experience and designed landscape. To support that experience, many of the parkway's recreation areas would provide enhanced opportunities for dispersed outdoor recreation activities. This alternative would provide a comprehensive parkway-wide approach to resource and visitor use management. Specific management zones detailing acceptable resource conditions, visitor experience and use levels, and appropriate activities and development would be applied to parkway lands consistent with this concept. This alternative would also seek to enhance resource protection, regional natural resource connectivity, and build stronger connections with adjacent communities.

ALTERNATIVE C

Under alternative C, parkway management would be more integrated with the larger region's resources and economy. More emphasis would be placed on reaching out to communities and linking to regional natural, recreational, and cultural heritage resources and experiences. The parkway would continue to be managed to retain the fundamental character of the traditional designed landscape and scenic driving experience. However, a variety of more modern recreational and visitor service amenities would be provided, primarily concentrated in visitor services areas. As a result, portions of some recreation areas would be redesigned.

EPA's COMMENTS and RECOMMENDATIONS

General Comments

Parkway Biodiversity:

The 469-mile Blue Ridge Parkway has about 400 road crossings, each one a pathway for exotics. The parkway is home to nine federally listed species and 14 species of federal concern. Its flora includes more than 2,000 species of vascular plants, 400 mosses and more than 100 kinds of trees. It supports more than 2,000 types of fungi, as well as 67 mammal, 93 fish, 43 amphibian, 40 reptile and 227 bird species. Along its 470-mile length, it intersects 15 watersheds. It contains 600 miles of streams, more than 150 wetlands and bogs and more than 300 seeps. Sixteen of its peaks rise above 5,000 feet, and it bisects six of 11 major sites supporting southern Appalachian spruce-fir forests. Sometimes-abrupt elevation changes occur regularly as the parkway climbs toward summits winds through gaps and descends to cross the James, Roanoke, Linville and French Broad rivers. Overall, its elevation ranges from 600 to 6,000 feet.

Threats to Blue Ridge Parkway biodiversity:

1. Exotic plants and forest pests. The parkway cannot handle all threats posed by exotic plants (among the worst problems: oriental bittersweet, microstegium, Chinese yam, coltsfoot, Japanese spirea, honeysuckle and wisteria, tree of heaven, princess tree, garlic mustard and kudzu), so it developed an exotic-plant management plan five or six years ago that established high-elevation sites and wetlands as top priority areas for fighting invasives. Forest pests the parkway is fighting include the hemlock woolly adelgid and gypsy moth.

Controlling invasive species is accomplished using a variety of methods: the use of herbicides, mechanical controls, physical control, such as fire, biological controls by the intentional introduction melaleuca-damaging beetlesand and public awareness. Herbicides, however, are generally are non-selective in inhibiting plant growth. Control methods most appropriate for widely differing park habitats need to be determined by NPS scientific staff, who must balance the protection of native plants/wildlife with exotic plant control objectives.

There is discomfort among some members of the public who harbor concerns over herbicides having unforeseen consequences adversely impacting park ecosystems and ultimately human health. These concerns include herbicide movement in soils, persistence in ground/surface waters, long-term ecological effects on non-target species such as fish, birds, mammals, and target plant species becoming resistant to herbicides.

EPA supports the use of registered herbicides if they are properly applied by licensed applicators, because there does not appear to be any cost-effective alternatives for controlling the spread of invasive exotic plant infestations. Infested sites are often situated in remote areas making mechanical removal impractical because of access difficulties. Keeping abreast of treatment frequencies, vulnerabilities of pest species, protection for threatened and endangered species residing at hundreds of differing locales, clearly require sophisticated management tools. Integrated management techniques including herbicides, mechanical removal, fire, biological controls, need to be coordinated through the use of GIS-based management tools to ensure that invasive species control is achievable for the long term.

EPA recommends an integrated pest management approach be developed using products with a low toxicity profile in sensitive ecosystems, since studies done in labs and under controlled conditions cannot always predict the effects on particularly sensitive individuals, biota or ecosystems. Successful eradication measures and other Best Management Practices (BMPs) should be clearly identified in the FEIS with emphasis on the construction of new trails and parking facilities.

2. Trampling by visitors and poaching. Unfortunately visitors right walk out on the edges of rock ledges, which is where many of our rare species occur. Trampling also occurs along trails.

3. Land development along the parkway. In some areas, adjacent landowners are bushwhacking to reach parkway trails, which provide additional corridors for exotics to migrate onto parkway lands. Development is a view shed issue, but it also has the effect of squashing whatever is rare and exotic onto parkway land.

4. Air pollution and global warming. Because it wasn't listed as a Class 1 air shed under the Clean Air Act, the parkway does not monitor air quality, although potentially air pollution and climate change could dwarf all other issues.

EPA recommends the final Management Plan include significant monitoring activities to ensure that the increase in hardened access areas and likely subsequent increase in recreational and educational usage of the park do not negatively impact biodiversity, natural and cultural resources.

Other general issues identified in DEIS:

"In general, most motorcycle accidents occurred in the southern portions of the parkway where the roadway geometry is more varied, and most of the deer-related accidents occurred in the northern portions where the topography and land use creates more wildlife crossings. The most common area for deer related accidents is near Roanoke between milepost 104 and milepost 128. Over 70% of the accidents in this 24-mile section were deer-related (DEA 2004)". **EPA recommends** that NPS consider large mammal wildlife passages to address this safety concern. NPS should consult with NCWRC and USFWS on the design of appropriate wildlife passages.

"Utility Operations is responsible for monitoring systems for water, sewer, electric, heating and cooling. The parkway currently maintains 45 individual potable water treatment systems, 94 wastewater treatment units, and 118 HVAC systems. There are also three solar powered units, two of which support visitor services areas. Many of these systems have exceeded their maximum effective life of 15 years, therefore creating greater operational costs". **EPA recommends** replacement of failing systems and further exploration of more energy efficient "green" systems.

In the spirit of collaboration and technical assistance the EPA recommends some sustainability concepts which could be considered in the final management plan.

Green Building

Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from design to, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building is also known as a sustainable or high performance building.

Green buildings are designed to reduce the overall impact of the built environment on human health and the natural environment by:

- Efficiently using energy, water, and other resources
- Protecting occupant health and improving employee productivity
- Reducing waste, pollution and environmental degradation

For example, green buildings may incorporate sustainable materials in their construction

(e.g., reused, recycled-content, or made from renewable resources); create healthy indoor environments with minimal pollutants (e.g., reduced product emissions); and/or feature landscaping that reduces water usage (e.g., by using native plants that survive without extra watering).

In the United States, buildings account for:

- 39 percent of total energy use
- 12 percent of the total water consumption
- 68 percent of total electricity consumption
- 38 percent of the carbon dioxide emissions

Potential benefits of green building can include:

Environmental benefits

Enhance and protect biodiversity and ecosystems
Improve air and water quality
Reduce waste streams
Conserve and restore natural resources

Economic benefits

Reduce operating costs
Create, expand, and shape markets for green product and services
Improve occupant productivity
Optimize life-cycle economic performance

Social benefits

Enhance occupant comfort and health
Heighten aesthetic qualities
Minimize strain on local infrastructure

Green Parking

Green parking refers to several techniques that when applied together reduce the contribution of parking lots to total impervious cover. From a storm water perspective, green parking techniques applied in the right combination can dramatically reduce impervious cover and, consequently, reduce the amount of storm water runoff. Green parking lot techniques include: setting minimums of permanent parking spaces; minimizing the dimensions of parking lot spaces; utilizing alternative pavers in overflow parking areas; using bioretention areas to treat storm water; encouraging shared parking.

Green parking lots can dramatically reduce the creation of new impervious cover. How much is reduced depends on the combination of techniques used to achieve the greenest parking. While the pollutant removal rates of bioretention areas have not been directly measured, their capability is considered comparable to a dry swale, which removes 91 percent of total suspended

solids, 67 percent of total phosphorous, 92 percent of total nitrogen, and 80-90 percent of metals (Claytor and Schueler, 1996).

North Carolina's Fort Bragg vehicle maintenance facility parking lot is an excellent example of the benefits of rethinking parking lot design (NRDC, 1999). The redesign incorporated storm water management features, such as detention basins located within grassed islands, and an onsite drainage system that exploited existing sandy soils. The redesign reduced impervious cover by 40 percent, increased parking by 20 percent, and saved 20 percent or $1.6 million on construction costs over the original, conventional design.

Briefly three other sustainable activities which may applicable to the Park Service's general management plan are as follows:

- **Green Detention Ponds**
- **Rain Water Harvesting**
- **Rain Gardens**

"Under alternative B, 10,139 acres (12.3%) of parkway lands would be zoned recreation in order to enhance outdoor recreational opportunities for visitors. Expanding or improving amenities and services within this zone would attract more visitors to less accessible areas of the parkway, increasing the likelihood of adverse impacts on threatened and endangered species. However, management prescriptions under the recreation zone state that any additional developments or use would be adapted as needed to protect threatened and endangered species" **EPA recommends** earlier and greater coordination with USFWS to avoid potential future conflicts under the Endangered Species Act.

Specific Comments

Page 5 of the DEIS indicates that there are 9 Federally-listed threatened & endangered species (animals); 24 plants globally rare; 7 considered globally imperiled. Page 10 of the DEIS indicates there are 8 Federally-listed species. Page 23 indicates 4 rare and endangered animal species and 25 rare and endangered plant species. Page 199 includes 7 Federally-listed threatened and endangered animal species and 5 Federally-listed threatened and endangered plant species. **EPA recommends** these sections need to be clarified and better defined in FEIS.

The DEIS indicates that the Moses H. Cone Estate Developed Area Management Plan is expected to be issued by NPS as a separate document in the Fall of 2011. **EPA requests a copy for review.**

Page 13 mentions the Roanoke River Parkway and the potential Explore Park in VA. **EPA recommends** that these projects be discussed further in the cumulative impact section to address issues such as potential secondary development.

Page 27 of the DEIS identifies the Wilson Creek Comprehensive River Management Plan. In this plan, riverbanks should remain largely undeveloped, "but may be accessible in

places by roads". **EPA recommends** that to the greatest extent practicable, new roads should not be placed in riparian areas to creeks and rivers designated as Wild and Scenic.

Page 38 of the DEIS identifies the development of a multi-use trail parallel to but separate from the parkway in the Boone/Blowing Rock area (Segment 4) as part of the Preferred Alternative B. The existing habitat and proposed length and width of the paved trail is not specified in the DEIS.

Page 83 indicates that under Alternative B the picnic area will be relocated out of the floodplain and the current site restored. EPA supports this option under Alternative B.

Page 84 indicates that trails will be possibly 'paved'. Further justification for recreational use requiring paved trails needs to be provided in the FEIS.

The DEIS identifies numerous locations under Alternative B that will include new water and electrical hook-ups for RVs. **EPA recommends** that NPS strongly consider solar-powered or other "green energy sources".

Page 89 This section is vague regarding the activities listed. **EPA recommends** the activities be listed in the FEIS.

Page 90 of the DEIS indicates that endangered species surveys will be conducted "as warranted". **EPA recommends** that NPS consult with the USFWS on the frequency required for surveys prior to the commencement of construction activities.

Page 90 of the DEIS includes information on Water Resources. **EPA recommends** stringent water quality BMPs, including geo-tech fabric, coconut fiber matting, and potentially Polyacrylamide (PAM) near steep slopes to help prevent off-site soil erosion and sedimentation into creeks, rivers and other water bodies.

Concerning the comments on Page 91, **EPA recommends** that the USACE be contacted by the NPS to assist in the Section 404 wetland jurisdictional delineations.

Page 91 of the DEIS discusses soils and other geological information along the BRP. This section does not include any discussion of identification of acid-bearing rocks, including pyritic shale and other high sulfur-bearing rocks. Acid drainage from exposed rock faces following construction can potentially cause long-term and significant environmental degradation to downstream waters. **EPA recommends** the FEIS identify known geologic formations that may present this long-term impact to waters of the U.S.

Page 126 of the DEIS states: "*Impacts on Federal and state listed species have not been analyzed in terms of parkway segments or recreation areas*". **EPA recommends** direct and timely coordination with the USFWS on Federally-listed species, including detailed Section 7 analysis for each segment of the BRP for the Preferred Alternative.

Page 130 discusses Routine Dredging for James River/Otter Creek- **EPA recommends**

that more information be provided. It is unclear if the dredging is related to NPS activities. Can these impacts be avoided or minimized?

Page 131 Peaks of Otter- the DEIS states that the management of developed area would result in long term adverse and local impacts to floodplain, riparian areas, wetlands and water quality. **EPA recommends** that more information be provided related to these impacts and avoidance and minimization measures be considered.

Page 202 of the DEIS uses both meters and miles in the same paragraph. **EPA recommends** consistent units of measure should be employed.

Page 207 of the DEIS indicates that there are counties in non-attainment with the Clean Air Act for ozone in both NC and VA. Alternative B encourages greater RV usage along the BRP. **EPA recommends** the NPS identify mitigative measures to reduce potential increased pollutant emissions (e.g., Solar powered electrical sources).

Page 208: "*Air pollution sources from within the parkway is also expected to continue to contribute to poor air quality, with the major contributor being motor vehicle emissions from visitors and commuters traveling the parkway*". **EPA recommends** NPS should look to develop other options that reduce reliance on automobiles and that favor other forms of recreational transportation for visitors (i.e. Bicycles).

Page 285 of the DEIS utilizes 2007 U.S. Census data. **EPA recommends** the NPS use more recent 2010 U.S., Census data. Future population and growth estimates based upon past growth trends may not be realistic considering economic conditions in western NC and VA.

Pages 296 and page 314 - Cumulative impacts discussions are very vague. **EPA recommends** the FEIS should address all other activities in more detail and how these activites relate to the proposed project. This analysis should also include the extended visitor season, proposed upgrades, and potential secondary development.

Page 329 indicates that poaching may increase with Alternative B, including providing greater accessibility to unique and rare habitats with new trails. **EPA recommends** the NPS should recommend appropriate mitigative strategies to off-set this potential illegal activity resulting from the Preferred Alternative.

Page 565 includes a statement regarding 'possible alternative transportation systems' including buses and shuttles to address impairment to air quality resulting from Alternative B. EPA does not understand how there will be a future use of buses and shuttles under the current Preferred Alternative.

We rate this document LO (Lack of Objections). However, as noted above, additional information, data, analyses, or discussion should be included in the FEIS.

We appreciate the opportunity to review the proposed action. Please contact Ken Clark of my staff at (404) 562- 8282 if you have any questions or want to discuss our comments further.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management